CLAIM AMENDMENTS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Claims 1-48 (Cancelled)

49. (Currently amended) A method for diagnosing cancer comprising:

a) determining the expression of a cytochrome B5 gene in a first suitable tissue sample [[type]] of a first individual suspected of being affected with cancer; and

b) comparing said expression of the cytochrome B5 gene in a) to the expression of a cytochrome B5 gene in ~~from~~ a second normal non-cancerous tissue sample [[type]] from said first individual or from a second ~~unaffected~~ individual unaffected with cancer; wherein a difference in expression between the first and second samples ~~in said expression~~ indicates that the first individual has cancer.

Claims 50-54 (Cancelled)

55. (Currently Amended) A method for diagnosing colon, breast or prostate cancer comprising: ~~comparing~~

(a) determining the [[a]] level of cytochrome B5 mRNA in a patient sample comprising colon, breast or prostate tissue; and

(b) comparing the level of mRNA in (a) to the level of the cytochrome B5 mRNA in a normal non-cancerous control sample, wherein an increase of at least 50% from the level in the patient sample relative to the ~~normal~~ control sample indicates that the patient has or is predisposed to colon, breast or prostate cancer.

56. (Previously presented) The method of claim 55 wherein the cytochrome B5 mRNA comprises a nucleotide sequence at least 95% identical to SEQ ID NO:869.

57. (Previously presented) The method of claim 55 wherein the cytochrome B5 mRNA comprises a nucleotide sequence at least 98% identical to SEQ ID NO:869.

58. (Previously presented) The method of claim 55 wherein the cytochrome B5 mRNA comprises SEQ ID NO:869.

59. (Currently Amended) The method of claim 55 wherein an increase of at least 100% from the level of the cytochrome B5 mRNA in the patient sample relative to the ~~normal~~ control sample indicates that the patient has or is predisposed to colon, breast or prostate cancer.

60. (Currently Amended) A method for diagnosing colon, breast or prostate cancer comprising detecting a differential expression of cytochrome B5 in a patient sample as compared to a normal non-cancerous control sample, wherein differential expression of cytochrome B5 indicates that the patient has colon, breast or prostate cancer.

61. (Previously presented) The method of claim 60 wherein evidence of differential expression is detected by measuring the level of a cytochrome B5 mRNA.

62. (Previously presented) The method of claim 61 wherein the level of the cytochrome B5 mRNA in the patient sample is compared to a control.

63. (Previously presented) The method of claim 62 wherein the control comprises normal colon, breast or prostate tissue.

64. (Previously presented) The method of claim 62 wherein the level of the mRNA in the patient sample is increased at least 200% relative to the control.

65. (Previously presented) The method of claim 60 wherein differential expression is detected by measuring the level of a cytochrome B5 expression product at least 95% identical to SEQ ID NO:869.

66. (Previously presented) The method of claim 60 wherein differential expression is detected by measuring the level of a cytochrome B5 expression product at least 98% identical to SEQ ID NO:869.

67. (Previously presented) The method of claim 60 wherein differential expression is detected by measuring the level of a cytochrome B5 expression product comprising SEQ ID NO:869.

68. (Currently Amended) A method of diagnosing colon, breast or prostate cancer in a patient comprising:

(a) contacting a polynucleotide ~~that hybridizes under highly stringent conditions to a nucleotide sequence comprising SEQ ID NO:869~~ with nucleic acids of a patient colon, breast or prostate sample under ~~binding~~ conditions suitable to form a duplex, wherein said polynucleotide hybridizes under highly stringent binding conditions to a nucleotide sequence comprising SEQ ID NO:869 and said highly stringent binding conditions comprise hybridization at 60-65°C in 5 X SSC (9 mM saline /0.9 mM sodium citrate); and

(b) comparing the amount of the duplex formed in (a) to the amount of duplex formed when [[the]] said polynucleotide is contacted with nucleic acids of a normal[[,]] non-cancerous control sample, wherein an increased ~~levels of the~~ amount of duplex formed with nucleic acids of said patient sample as compared to said control sample ~~upon contacting said polynucleotide with said nucleic acids of the patient sample compared to the amount of duplex formed upon contacting said polynucleotide and said nucleic acids of the normal non-cancerous control~~ is indicative of the presence of ~~prostate cancer, colon cancer, stomach cancer or breast~~ colon, breast or prostate cancer in said patient~~; and wherein hybridization is performed at 60°C in 5 X SSC (9 mM saline /0.9 sodium citrate~~.

69. (Currently Amended) A method of diagnosing colon, breast or prostate cancer in a patient, said method comprising:

(a) detecting in a patient sample the level of expression of an mRNA having a sequence at least 95% identical to the nucleotide sequence set forth in SEQ ID NO:869, or the complement thereof; and

(b) comparing~~, wherein an increase between~~ the level of expression of said mRNA in said patient sample relative to the level of expression of said mRNA in a normal non-cancerous control sample, wherein an increase of said mRNA in said patient sample indicates said patient has colon, breast or prostate cancer.

70. (Previously presented) The method of claim 69, said mRNA comprising a nucleotide sequence at least 98% identical to SEQ ID NO:869.

71. (Previously presented) The method of claim 69, said mRNA having the nucleotide sequence set forth in SEQ ID NO:869.

72. (Currently Amended) A method for diagnosing colon, stomach, or breast cancer in an individual, said method comprising:

a) determining the expression of a nucleic acid having the nucleotide sequence set forth in SEQ ID NO:869 in a colon, stomach, or breast tissue sample from said individual; and

b) comparing said expression of said nucleic acid in a) to the expression of said nucleic acid in [[from]] a normal non-cancerous control colon, stomach, or prostate tissue sample; wherein an increase in [[said]] expression in said tissue sample from said individual indicates that said individual has colon, stomach, or breast cancer.

73. (Currently Amended) A method of diagnosing colon, breast or prostate cancer comprising:

a) determining the level of an expression product at least 95% identical to the nucleotide sequence set forth in SEQ ID NO:869, or the complement thereof, in a patient colon, breast or prostate sample; and

b) comparing said level of the expression product in (a) to a level of the expression product in a second sample, said second sample comprising a normal non-cancerous control colon, breast or prostate sample, wherein an increase between the level of the expression product in (a) and the level of the expression product in the second sample indicates that the patient has colon, breast or prostate cancer.